

WHAT IS CLAIMED IS:

1. An apparatus for displaying a three-dimensional image of an object to be displayed, through a superimposing of a plurality of images of said object, which are placed
5 so as to be apart from each other on a line of sight of an observer, comprising:
a plurality of display units disposed in tandem on said line of sight, each of said plurality of display units comprising at least one screen section for displaying at
10 least one image of said plurality of images; and
a display image control unit for displaying a screen section-adjustment image on each of said plurality of display units, to enable the three-dimensional image to be displayed, in case where the observer is placed in a predetermined
15 observation position.
2. The apparatus as claimed in Claim 1, further comprising:
a display mode control unit for making a change in a display mode for said screen section-adjustment image, which
20 is displayed on at least one display unit of said plurality of display units; and
an input unit for enabling instructions on change in said display mode to be inputted into said display mode control unit.
- 25 3. The apparatus as claimed in Claim 2, wherein:

said input unit comprises an external input device through which an external input operation is to be carried out.

4. The apparatus as claimed in Claim 2, wherein:
5 said display mode control unit is configured to enable
 said at least one display unit to shift in a predetermined
 direction; and
 said input unit enables instructions to shift said at
 least one display unit in said predetermined direction by
10 a predetermined distance to be inputted into said input unit.
5. The apparatus as claimed in Claim 2, wherein:
 said display mode control unit is configured to enable
 an apparent distance between adjacent two display units of
 said plurality of display units to vary; and
15 said input unit enables instructions to vary said
 apparent distance to a predetermined distance to be inputted
 into said input unit.
6. The apparatus as claimed in Claim 2, wherein:
 said display mode control unit is configured to enable
20 said at least one screen section to shift on a plane, which
 intersects said line of sight; and
 said input unit enables instructions to shift said at
 least one screen section by a predetermined distance to be
 inputted into said input unit.
- 25 7. The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable said at least one screen section to be scaled; and

said input unit enables instructions to scale said at least one screen section at a predetermined magnification to be inputted into said input unit.

8. The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable brightness of at least one part of said at least one screen section to vary; and

said input unit enables instructions to vary the brightness of said at least one part to be inputted into said input unit.

9. The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable chromaticity of at least one part of said at least one screen section to vary; and

said input unit enables instructions to vary the chromaticity of said at least one part to be inputted into said input unit.

10. The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable distortion of at least one part of said at least one screen section to vary; and

said input unit enables instructions to vary the distortion of said at least one part to be inputted into

said input unit.

11. The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable
an inclination angle of at least one part of said at least
5 one screen section to vary; and

said input unit enables instructions to vary the
inclination angle of said at least one part to be inputted
into said input unit.

12. The apparatus as claimed in Claim 6, wherein:

10 said display mode control unit applies a signal
processing to an image signal supplied to said at least one
display unit to make a change in the display mode for said
screen section-adjustment image.

13. The apparatus as claimed in Claim 2, further comprising:

15 a record unit for recording state information on a
predetermined state of said apparatus.

14. The apparatus as claimed in Claim 13, wherein:

said input unit enables any one of said state
information to be selected and enables instructions to make
20 a change in the display mode based on said any one as selected
to be inputted into said input unit.

15. The apparatus as claimed in Claim 1, wherein:

of said plurality of display units, at least one display
unit other than a display unit, which is disposed on a rear most

side in a viewing direction of said observer, comprises a translucent display device.

16. The apparatus as claimed in Claim 15, wherein:

said translucent display device comprises any one of
5 a liquid crystal display device and an electroluminescent display device.

17. The apparatus as claimed in Claim 1, wherein:

said plurality of display units comprise at least one composite display unit, which is obtained thorough
10 composition by means of a half mirror.

18. A method for displaying a three-dimensional image of an object to be displayed, through a superimposing of a plurality of images of said object, which are placed so as to be apart from each other on a line of sight of an observer,
15 said method comprising:

an image signal generation step for generating a screen section-adjustment image, which enables the three-dimensional image to be displayed on each of a plurality of display units, in case where the observer is
20 placed in a predetermined observation position; and

a display image control step for displaying said screen section-adjustment image, which has been generated by said image signal generation step, on said each of said plurality of display units.

25 19. The method as claimed in Claim 18, further comprising:

a display mode control step for making a change in a display mode for said screen section-adjustment image, which is displayed on at least one display unit of said plurality of display units; and

5 an input step for inputting instructions on change in said display mode.

20. The method as claimed in Claim 19, further comprising:

 a record step for recording state information on a predetermined state of an apparatus for displaying the
10 three-dimensional image.